

## Desmos Workshop

### Agenda

- Getting Started (Taylor - 5 mins)
  - Sign-Up [Free]
  - Benefits of being a member (saving graphs, sharing, its free!)
- Intro to Desmos
  - The interface (Sean - 5 min)
    - all the buttons and what they do (saving, changing axis, zooming in/out, on-screen keyboard for SmartBoard usage)
    - Using pre-made templates within Desmos
- **Activity 1** (Sean - 10 mins)
  - Plot a line using the formula  $y=mx+b$  and create sliders for  $m$  and  $b$
  - Create a second line that is perpendicular to your first line regardless of what value  $m$  takes (use the sliders to ensure this happens)
- **Activity 2** (Taylor - 10 mins)
  - Find a picture of a pirate ship, cannon ball, and an island
  - Anchor the ship and the island to two points  $(-3,0)$  and  $(5,0)$
  - Have the cannonball travel a quadratic path from the ship to the island
- **Activity 3** (K.V. - 10 mins)
  - Without using the template:
    - plot a more complicated function
    - plot the tangent line to this curve at a general  $x$ -value (using a slider for  $x$ )
    - the tangent line should “ride along” the curve as the  $x$ -value changes
    - \*\*\*after 5 mins show template of tangent line and let them alter their own appropriately
- Q&A And Final Thoughts (Everyone - 5 minutes)
  - Advanced Desmos Scripts
    - <https://class.desmos.com/carnival>
    - <http://mrhonner.com/desmos>
  - Remaining Questions